

THE USE

OF

THE VOLSELLA IN GYNECOLOGY.

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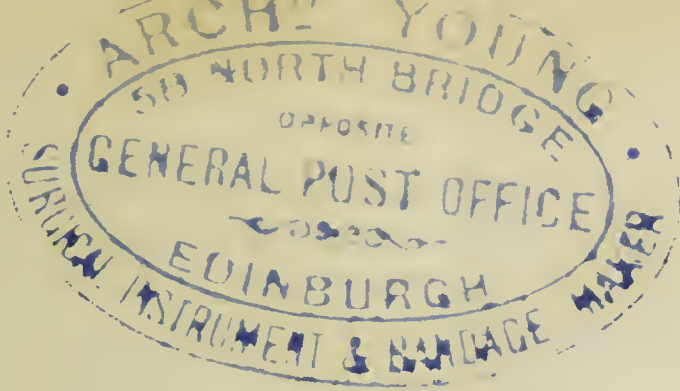
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## USE OF THE VOLSELLA IN GYNECOLOGY.

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A YOUNG graduate just about to enter upon practice, guided by his text-books on midwifery and the diseases of women, would not think of supplying himself with a volsella as a needful part of his equipment for that department of his work. He would be duly impressed with the need and usefulness of specula, of sounds, of tents, of tenacula, forceps, etc., but if he thought of the volsella at all, he would only think of it as a superfluity. Thomas,<sup>1</sup> Barnes,<sup>2</sup> Emmet,<sup>3</sup> Courty,<sup>4</sup> Gallard,<sup>5</sup> Leblond,<sup>6</sup> Schroeder,<sup>7</sup> Sinéty,<sup>8</sup> give no place to it among the instruments required for gynecological exploration.<sup>9</sup> Yet the volsella has long been a familiar instrument in the hands of experienced gynecologists. The great French surgeons of the last generation, who occupied themselves with the diseases of women, made frequent use of it. Sir James Simpson<sup>10</sup> quotes Lisfranc to the following effect:—"Let a speculum be introduced so as to embrace the cervix uteri, and thus prevent the uterus falling by its own weight, then bid the patient bear down as if at stool, and you will perceive that, as the instrument descends, the

<sup>1</sup> *Diseases of Women*, 1875.

<sup>2</sup> *Ibid.*, 1878.

<sup>3</sup> *Principles and Practice of Gynecology*, 1879.

<sup>4</sup> *Traité pratique des maladies de l'utérus*, 1866.

<sup>5</sup> *Leçons cliniques sur les maladies des femmes*, 1873.

<sup>6</sup> *Traité élémentaire de chirurgie gynécologique*, 1878.

<sup>7</sup> *Handbuch der Krankheiten der Weiblichen Geschlechtsorgane*. Leipzig, 1874.

<sup>8</sup> *Manuel Pratique de Gynécologie*. Paris, 1879.

<sup>9</sup> Since this was written, the section in Pitha and Billroth's *Handbuch der Allgemeinen und speciallen Chirurgie* on "Die Untersuchung der Weiblichen Genitalien," by Chrobak, has appeared. It gives a fair account of the exploratory uses of the volsella, p. 5.

<sup>10</sup> *Selected Obstetrical and Gynecological Works*, A. & C. Black, 1871, vol. i. Footnote, p. 621.

uterus follows it to the extent of an inch or so from the orifice of the vagina—an immense advantage when the surgeon wishes to bring down the uterus to near the vulva. In cases requiring operation about the cervix, all that the surgeon has to do is to lay hold of the os uteri with a hook and draw it gently down until it comes fairly within sight; this may be effected without difficulty and without much inconvenience to the patient.”

Dupuytren,<sup>1</sup> in describing the removal of a fibroid, speaks no less distinctly as to the descent of the uterus when traction is made on the tumour—“The substance of the tumour is caught in the bite of a volsella. Moderate traction is employed, and the patient also requested to strain down as if in labour. She does this readily, so that the tumour soon appears close to the external orifice. It is now grasped with a second pair of forceps, and gentle traction, aided by the patient’s efforts, brings it to the vulvar orifice, which it soon passes, and the cervix uteri itself is exposed.”

I reproduce here a woodcut (see Fig. 1) from the well-known work<sup>2</sup> of Jobert de Lamballe on vesico-vaginal fistulæ, in which it will be seen that the cervix is pulled down by means of two pairs of Museux’s forceps until the os has been made to pass over the perineum, for the purpose of exposing a fistula in the vaginal roof. In an address<sup>3</sup> on “Obstetrics and Gynecology One Hundred Years Ago,” I described the use of the volsella in a case of this kind where I had the privilege of witnessing an operation for the cure of fistula by Professor Stoltz.

In his “Memoir on the Uterine Sound,” Sir James Simpson<sup>4</sup> points out that the uterus “may be drawn down by instruments till the cervix reaches the external parts themselves, or even protrudes beyond them—a circumstance which facilitates immensely the operation of the excision of this part of the organ.”

Goodell<sup>5</sup> has given a brief but very suggestive account of the use of the volsella, which I quote in full. He says, “One word here on the subject of the volsella. Since it maintains its hold better than the tenaculum, it is to me one of the most precious instruments in my bag, amounting in value almost to a third hand. Apart from using it as above described in re-dressing or straightening out any kind of version or flexion of the womb, it subserves other useful purposes. By hooking down the cervix and holding it steady, it materially aids in the introduction of sponge-tents. For the same reason, upon the removal of the tent it renders the exploration of the uterine cavity with the finger

<sup>1</sup> *Leçons orales de clinique chirurgicale*. Tome troisième, p. 227.

<sup>2</sup> *Traité des fistules vesico-utérines*, etc. Paris, 1852, p. 4.

<sup>3</sup> *Obstetrical Journal of Great Britain and Ireland*, 1876, iv., 587.

<sup>4</sup> *Selected Obst. Works*, p. 621. See also *Clinical Lectures on Diseases of Women*, p. 170.

<sup>5</sup> *Some Practical Hints for the Treatment and the Prevention of the Diseases of Women*. Reprinted from the *Medical and Surgical Reporter* for January and February 1874.



very much easier than by the usual plan of forcing the womb down on the examining finger by suprapubic pressure, a pro-

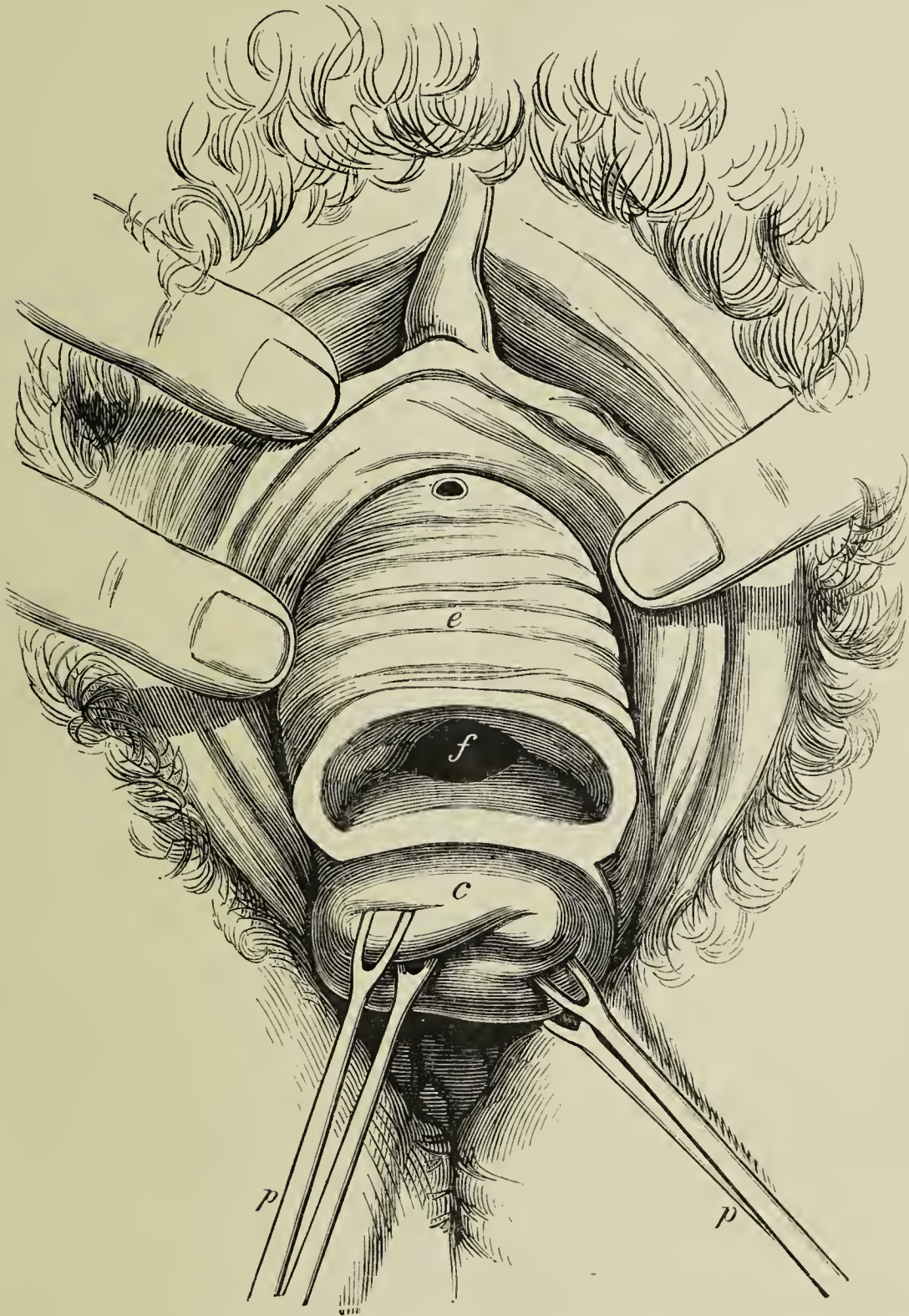


FIG. 1.—The Uterus hauled down to bring a vesico-vaginal fistula within reach (Jobert de Lamballe). *e*, anterior vaginal wall; *f*, fistula; *c*, cervix-uteri: *pp*, Museux's forceps.

cedure always painful, and in a fat woman very difficult of execution. By thus lowering and fixing the womb, it facilitates very materially the removal of intrauterine polypi, or the scraping away of benign or malignant growths from the cervix or the fundus. In such cases I usually apply it without the aid of the speculum, and generally seize hold of the anterior lip. In redressing versions, a mechanical advantage is gained by seizing



hold of that lip of the cervix whose name does not correspond with that of the version. But in flexions, as one object of the traction is to stretch out the flexed side the most, that lip should be seized whose name corresponds with that of the flexion. This advice is theoretically correct; but it may not always be practicable."

Battey, in an article on the "Extirpation of the Functionally Active Ovaries,"<sup>1</sup> says, "The cervix is seized with a stout volsella, the uterus drawn down under the pubic arch, and the vaginal membrane and cellular tissue incised with scissors, say one and a half inch in the median line of the posterior *cul-de-sac*, beginning immediately behind the uterus."

Næggerath, in his very original article<sup>2</sup> on "The Vesico-vaginal and Vesico-rectal Touch," says, "If we attempt to explore the upper section of the uterus, it must be pulled down by means of a double hook, the points of which are turned outwards, introduced into the cervical canal, and it is perfectly safe to dislocate the uterus downwards about an inch and a half. When this is done, with one finger in the bladder and one in the rectum, we are enabled to thoroughly explore the whole of the uterus, from the fundus down to the external orifice."

The most satisfactory account of the use of the volsella we find in the writings of Hegar—first, in his *Operative Gynecology*,<sup>3</sup> and again still more fully in his clinical lecture on Gynecological Diagnosis.<sup>4</sup> In that lecture he begins his reference to the use of the volsella by saying, "For some years we have made use of a very sure, and at the same time innocent, method, which consists in applying a volsella to the vaginal portion to fix the uterus, to draw it somewhat downwards, and, where necessary, to make lateral movements with it."

In a communication which I read to this Society on "The Complete Evacuation of the Uterus,"<sup>5</sup> I showed how the use of the volsella facilitated the access of the finger to the interior of the uterus.

In all these quotations, however, with the exception of those of Goodell and Hegar, it will be observed that the mention of the volsella comes in almost incidentally, or with reference to some special exploration or operation; and as I become more impressed with the importance of the aid it furnishes us in various directions, I am anxious to press its value upon the Fellows of this Society, and to claim for it a permanent place in every text-book on gynecology, and in every gynecologist's armamentarium.

<sup>1</sup> *American Gynecological Transactions*, i. 115.

<sup>2</sup> *American Journal of Obstetrics*, viii. 135.

<sup>3</sup> *Die Operative Gynaekologie von Hegar und Kaltenbach*, p. 49. Erlangen, 1874.

<sup>4</sup> *Zur gynäkologischen Diagnostik. Die Combinirte Untersuchung*. Volkmann's Sammlung, No. 105.

<sup>5</sup> *Transactions of Edinburgh Obstetrical Society*, iv., 221; and *Edinburgh Medical Journal*, xxi., 965, May 1876.

## THE INSTRUMENT.

Let me say at once that there need be nothing peculiar in the construction of the instrument. Volsellæ of different sizes are very useful, and sometimes it is absolutely necessary to have them large and long for the seizure and down-dragging of big intrauterine fibroids. In such cases I find a pair of toothed forceps (Fig. 2) very helpful, which Sir James Simpson had constructed, with separable blades, locking like a pair of Smellie's midwifery forceps, and capable of being fixed together after they were locked with a screw-pin, serving as a joint. But the instrument for daily use in the common run of cases is a simple small curved volsella of the size here represented (Fig. 3), each stem ending in three short teeth. Sometimes single-pronged or two-pronged volsellæ with longer teeth may be employed; but I get the greatest amount of service from the small three-teethed variety, which it is better to have made with a catch on the handles like those on Pean's artery forceps, or such as is shown in the woodcut.

## MODE OF EMPLOYMENT.

We know the cervix uteri is richly enough supplied with sensory nervous filaments. For the most part, however, they run to the sympathetic ganglia, and but few, if any, have direct communication with the cerebro-spinal system. A prick or a crush of the lips is, therefore, even when perceived by the individual, not a cause of acute or lengthened suffering. The cervix uteri is not only very much less sensitive than the labia pudenda, it is even far less sensitive than the walls of the vagina in the immediate vicinity. I find that when it is touched with ice the patient does not experience the sense of cold; and the touch of a cautery on the surface does not cause her pain. Hence, we feel free to use the volsella without fear of adding in any marked degree to a patient's distress.

When either the anterior or the posterior or both of the lips have been laid hold of, first the cervix, and with it the whole uterus, can be pulled forwards or backwards, to the right or to the left. Above all, it can be dragged downwards. The amount of force required to do this on the living subject is exceedingly slight, as I find, on observation of a series of cases, that a force of from 3 to 7 lbs. is sufficient to bring the os uteri to the ostium vaginæ, without any discomfort to the woman.

I had a favourable opportunity recently of studying the mode of descent of the uterus in the grasp of a volsella in a case where the urethra had been dilated for vesical explorations, where the finger introduced into the bladder could follow down accurately the movements of the uterus and anterior wall of the vagina. As it descends, the cervix brings with it the posterior angle of what Dr Hart<sup>1</sup> describes as the pubic triangle or anterior seg-

<sup>1</sup> *Edinburgh Medical Journal*, April 1879.



ment of the pelvic floor; that is to say, the anterior wall of the vagina, the bladder, and uterus are brought down *en masse*. The posterior wall of the vagina becomes inverted

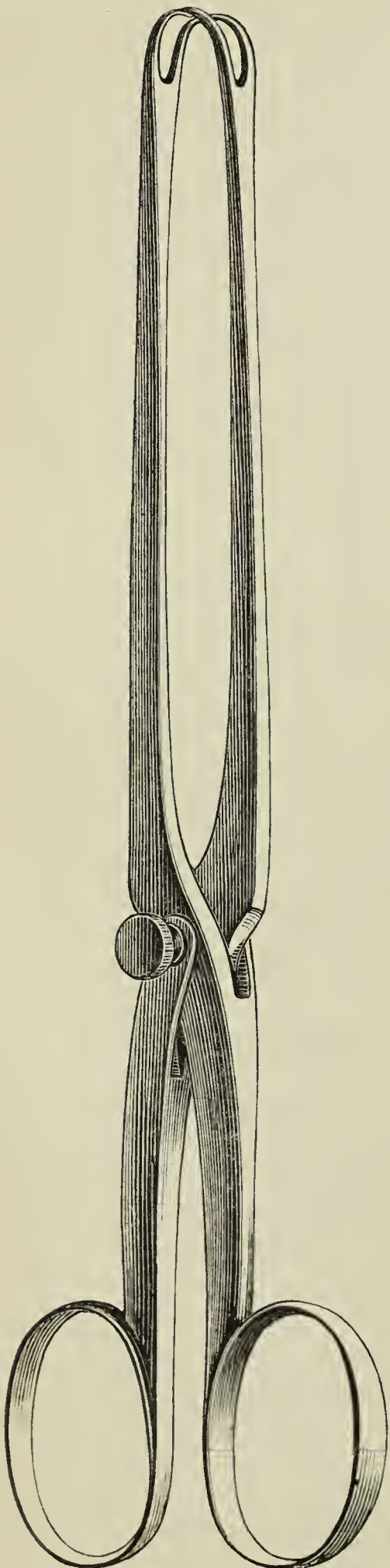


FIG. 2.—Volsella for seizure of intrauterine fibroids. (Two-thirds size.)

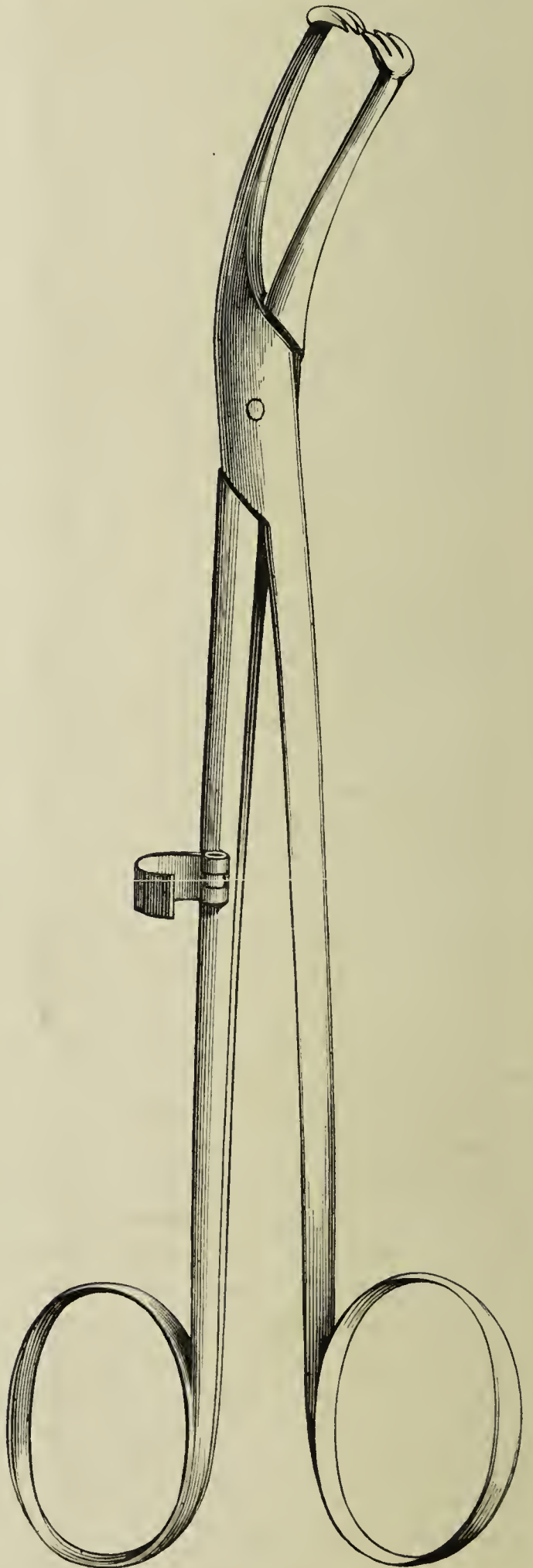


FIG. 3. —Ordinary volsella. (Full size.)



from above downwards more gradually, being separated from its loose contact with the anterior wall of the rectum, the canal of which remains unaffected (Fig. 4). In general the organ must descend so far as to bring the os clear through the vulva before the utero-sacral ligaments are put upon the stretch. It is when these become quite tense that the patient has any sensation of special discomfort. We need not stop to point out that the uterus in this temporary position does not present the usual relations of the prolapsed one.

In employing the volsella it is obvious that it will usually be a comfort, and sometimes a necessity, to have a nurse or assistant at hand to keep it, or some of the other instruments, or parts of the patient, in proper position. But this aid can often enough be dispensed with by the operator tying a tape or string round the handles of the instrument, and giving it to the patient herself to hold, or fixing it on a part of his own dress.

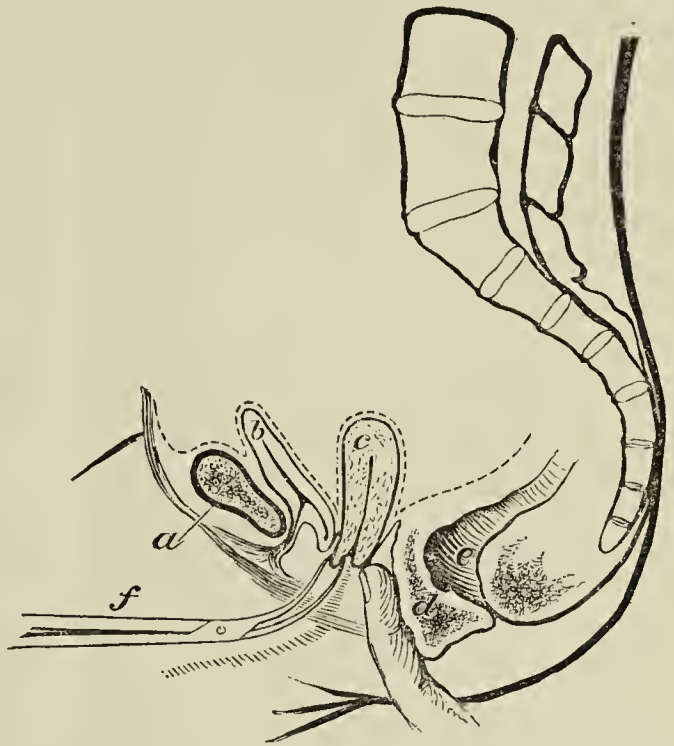


FIG. 4.—Vertical section of Pelvis, showing relations when Uterus is hauled down. *a*, symphysis; *b*, bladder; *c*, uterus; *d*, perineum; *e*, rectum; *f*, volsella.

### SPECIAL USES.

I. EXPLORATORY.—Let me ask attention, to begin with, to the services it will render us in the Exploration of various conditions of the pelvic organs.

1. *To bring Parts within Range of Vision.*—In the great run of cases, two fingers introduced into the vaginal canal can be used to pull back the perineum, and then a finger, or sound, or pair of dressing forceps, or special depressor, pressing forward the anterior wall of the vagina, brings the cervix into view. Instead of the finger, sound, or other instrument, let the practitioner use such a volsella as I have indicated, and he will find it easy to lay hold of the anterior lip of the uterus, so as to bring os, cervix, and when necessary vaginal roof, within full range of vision.

2. *To bring Parts within Reach of Touch.*—When the uterus is thus drawn upon, it is obvious that the finger will have more easy access to the higher parts of the uterus, whether it be passed first through the cervix into the interior of the uterus, or whether it seeks to determine the condition of it and its adnexa externally, and its relations through the vaginal canal, through the rectum, or in rarer cases through the bladder, or through two or more of these

simultaneously. We thus get a better impression, *a*, of the size of the uterus, whether that be normal, lessened, or increased; *b*, of its position, when it is the subject of version or flexion in one or another direction; *c*, of its relation to pelvic tumours, whether it be attached to them or independent in its mobility; *d*, of the size, situation, and circumstances of the ovaries and other parts around the uterus. I do not need to state that the use of the volsella which I am describing does not exclude the employment of other instruments for exploration, and in some cases, after laying hold of the uterus with it, or before doing so, it will be convenient to make use of the speculum, or more rarely of the sound.

II. OPERATIVE.—Without entering into details of the various Operations, I may point out some in which it is either absolutely necessary or extremely useful to bring down the uterus, or simply to fix it with a volsella.

1. *Operations on Interior of Uterus*.—It will be found very helpful, 1st, in *Introducing* stem-pessaries, tents, medicated arrows, or the sound, armed with cotton wadding, and charged with various medicaments; 2d, In the *Removal* of foreign bodies, or of neoplasms and fragments of ova, from the cavity of the uterus, whether with the finger or by means of a curette or other instrument.

2. *For Application of Elastic or Esmarch Ring*.—To carry out the various operations on the vaginal portion of the cervix bloodlessly, an indiarubber umbrella ring may be carried up to the level of the isthmus uteri by passing it over a volsella that has grasped the whole thickness of the cervix in its embrace, or over two volsellæ, one applied to the anterior, the other to the posterior lip.

3. *Operations on the Vaginal Portion of the Cervix*.—In the many cases where recourse must be had to operative interference with the os and cervix uteri the use of the volsella is simply indispensable. Such are, 1st, Division of the cervix; 2d, Amputation of its infra-vaginal portion; 3d, Emmet's operation for the repair of lacerations of the cervix; 4th, Removal of polypi, etc.

4. *Operations for Rectifying Displaced Uteri*.—In restoring the uterus to its proper position in cases of flexion, version, and inversion, the volsella facilitates immensely the reposition.

5. *Operations on the Vagina*.—In attempting the closure of fistula high up in the vaginal cavity, or the removal of neoplasms in that situation, the manipulations can in many cases only be satisfactorily carried out when the uterus has been pulled downwards and backwards with the volsella.

6. *Intra-Peritoneal Operations*.—In cases where we seek access to the peritoneal cavity through the vaginal roof, as for the removal of the ovaries, extra-uterine ova, etc., the volsella, grasping the cervix, pulls it forwards and downwards, and makes tense the structures that require to be divided.



## CONTRA-INDICATIONS TO USE.

I have said that in advocating the more frequent use of the volsella I do not wish it to be understood that it should supplant the use of the speculum, sound, and other instruments with which the profession has long been more familiar. I would now add that, as in the employment of these instruments, so in the employment of this, it must always be borne in mind, that notwithstanding the great assistance which we obtain from it, there are conditions, physiological and pathological, which forbid its application.

I. PHYSIOLOGICAL.—As a general rule, which has but rare exceptions, the use of the volsella must be abstained from in the two physiological conditions: 1, of *Menstruation*; 2, of *Pregnancy*. Even in cases where morbid conditions of menstruation or pregnancy call for active interference, the wise practitioner will use the volsella as he would practise the simplest touch in a menstruating or pregnant female, with more than the usual care and delicacy.

II. PATHOLOGICAL.—1. *Neoplasms* rendering the tissues of the cervix particularly friable or hemorrhagic prevent the laying hold of it with the volsella. But the great pathological contra-indication to its use is found in—2. The *Inflammatory changes*, not only acute, as of any of the pelvic organs, but even chronic, as especially in the cellular tissues. Happily the cases where the volsella would be most likely to cause pain and trouble are also most likely to be diagnosed and treated without its aid, so that we have in them no great inducement to have recourse to its employment.

